

Climate Detectives

Grades: 3rd

Engagement

Activate student's prior knowledge about how fossils can tell us something about the environment in which they lived. Discuss what they learned in the Discovery lab.

Exploration

Tell students that a period of sudden global warming 55-million years ago radically changed life on Earth. Animals and even plants went on the move in search of cooler places. A Smithsonian paleontologist named Scott Wing has found a way of telling the temperatures of this time. He examines fossils of tree leaves and uses his findings in a mathematical equation. In the interactive Prehistoric Climate Change, we as a class can "read the tree leaves" and tell how high the temperatures rose. You'll also meet Scott in a video.

http://www.smithsonianeducation.org/students/idealabs/prehistoric_climate_change.html

Or, you can search for the following in your web browser: Smithsonian Prehistoric Climate Change. Once at the interactive it will lead you and your class through the lab.

Explanation

Have students summarize in writing an explanation of how leaf fossils can provide evidence of the temperature of a climate in which they existed. Have volunteers share their explanations with the group and discuss.

Adapted From

Prehistoric Climate Change: http://www.smithsonianeducation.org/students/idealabs/prehistoric_climate_change.html

Nevada Academic Content Standards in Science (NGSS): 3-LS4-1.

Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.



What you will need:

- Internet access and projector
- Calculator (optional but helpful)